



*Commonwealth of Virginia*

***VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY***

TIDEWATER REGIONAL OFFICE

5636 Southern Boulevard, Virginia Beach, Virginia 23462

(757) 518-2000 FAX (804) 698-4178

[www.deq.virginia.gov](http://www.deq.virginia.gov)

Travis A. Voyles  
Secretary of Natural and Historic Resources

Michael S. Rolband, PE, PWD, PWS Emeritus  
Director  
(804) 698-4020

Craig R. Nicol  
Regional Director

May 4, 2023

Mr. Derek S. Kramer  
Chief Operating Officer  
Archaea Energy  
4444 Westheimer Road  
Suite G450  
Houston, Texas 77027  
[dkramer@archaea.energy](mailto:dkramer@archaea.energy)

Re: INGENCO Wholesale Power, LLC – Virginia Beach Landfill II  
Location: Virginia Beach  
**Registration No.: 61423**

Dear Mr. Kramer:

Attached is a renewal Title V permit to operate your facility pursuant to 9VAC5 Chapter 80 Article 1 of the Virginia Regulations for the Control and Abatement of Air Pollution. The attached permit will be in effect beginning June 1, 2023.

In the course of evaluating the application and arriving at a final decision to issue this permit, the Department of Environmental Quality (DEQ) deemed the application complete on December 10, 2018, and solicited written public comments by placing a newspaper advertisement in The Virginian-Pilot on March 17, 2023. The thirty-day required comment period, provided for in 9VAC5-80-270, expired on April 17, 2023.

This permit contains legally enforceable conditions. Failure to comply may result in a Notice of Violation and/or civil charges. Please read all permit conditions carefully.

This permit approval to operate shall not relieve INGENCO Wholesale Power, LLC of the responsibility to comply with all other local, state, and federal permit regulations.

The Board's Regulations as contained in Title 9 of the Virginia Administrative Code 5-170-200 provide that you may request a formal hearing from this case decision by filing a petition with the Board within 30 days after this case decision notice was mailed or delivered to you. Please consult the relevant regulations for additional requirements for such requests.

As provided by Rule 2A:2 of the Supreme Court of Virginia, you have 30 days from the date you actually received this permit or the date on which it was mailed to you, whichever occurred first, within which to initiate an appeal of this decision by filing a Notice of Appeal with:

Michael S. Rolband, Director  
Department of Environmental Quality  
PO Box 1105  
Richmond, VA 23218

If this permit was delivered to you by mail, three days are added to the thirty-day period in which to file an appeal. Please refer to Part Two A of the Rules of the Supreme Court of Virginia for information on the required content of the Notice of Appeal and for additional requirements governing appeals from decisions of administrative agencies.

If you have any questions concerning this permit, please contact Jeremy Funkhouser at [jeremy.funkhouser@deq.virginia.gov](mailto:jeremy.funkhouser@deq.virginia.gov) or 540-217-7486.

Sincerely,



Craig R. Nicol  
Regional Director

Attachment: Permit

cc: File, DEQ – VRO  
Director, OAPP  
Associate Director, Air Permits Branch, Air & Radiation Division, US EPA Region 3  
Collin Blalock, Air Compliance Inspector, DEQ - TRO



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**Federal Operating Permit  
Article 1**

This permit is based upon the requirements of Title V of the Federal Clean Air Act and Chapter 80, Article 1, of the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution. Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, §10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act, and 9VAC5-80-50 through 9VAC5-80-300, of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee Name:	INGENCO Wholesale Power, LLC
Facility Name:	INGENCO Wholesale Power, LLC – Virginia Beach
Facility Location:	1997 Jake Sears Road, Virginia Beach, Virginia
Registration Number:	61423
Permit Number:	TRO-61423

This permit includes the following programs:

**Federally Enforceable Requirements - Clean Air Act**

**June 1, 2023**

Effective Date

**May 31, 2028**

Expiration Date

**May 4, 2023**

Signature Date

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Craig R. Nicol

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## **Facility Information**

### **Permittee**

INGENCO Wholesale Power, LLC  
4444 Westheimer Road  
Suite G450  
Houston, Texas 77027

### **Responsible Official**

Mr. Derek S. Kramer  
Chief Operating Officer, Archaea Energy  
(380) 900-2739  
[dkramer@archaea.energy](mailto:dkramer@archaea.energy)

### **Facility**

INGENCO – Virginia Beach  
1997 Jake Sears Road  
Virginia Beach, Virginia 23462

### **Contact Person**

Ryan Christman, EIT  
Environmental Engineer  
(863) 224-4395  
[rchristman@archaea.energy](mailto:rchristman@archaea.energy)

**County-Plant Identification Number:** VA0000005181000117

### **Facility Description:**

NAICS: 221118 - Other Electric Power Generation

This U.S. industry comprises establishments primarily engaged in operating electric power generation facilities (except hydroelectric fossil fuel, nuclear). These facilities convert other forms of energy, such as solar, wind, or tidal power, into electrical energy. The electric energy produced in these establishments is provided to electric power transmission systems or to electric power distribution systems.

NAICS: 221112 – Fossil Fuel Electric Power Generation

This U.S. industry comprises establishments primarily engaged in operating fossil fuel powered electrical power generation facilities. These facilities use fossil fuels, such as coal, oil, or gas, in internal combustion or combustion turbine conventional steam process to produce electric energy. The electric energy produced in these establishments is provided to electric power transmission systems or to electric power distribution systems.

Specifically, this facility is an electrical power generation facility that uses 36 dual-fueled engines (Ref. A1-F6), each powering a 350 kilowatt (kW) non-emergency electrical generator. The fuels used by the engines include No. 2 fuel oil, No. 4 fuel oil, mineral oil dielectric fluid (MODEF), biodiesel fuel oil, and treated landfill gas.

## Emission Units

Process Equipment to be operated consists of:

### Electrical Power Generating Plant

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity <sup>a</sup>	Pollution Control Device (PCD) Description *	PCD ID	Pollutant Controlled	Applicable Permit Date
A1-F6 <sup>b</sup>	S1 – 6 <sup>c</sup>	Thirty-six (36) Detroit Diesel Series 60 inline 6 cylinder engines, each powering a 350 kW electric generator	550 HP (each engine)	N/A Passive controls: air-to-fuel ratio control, turbo-charging, custom built after coolers and charge-air cooling systems, engine control modules	--	NOx, CO, SO2, VOC, PM-10, and PM-2.5	12/16/2011

### Landfill Gas Treatment and Transport System

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity <sup>a</sup>	Pollution Control Device (PCD) Description *	PCD ID	Pollutant Controlled	Applicable Permit Date
--	--	Landfill gas treatment and transport system components	1,000 – 4,500 scfm	--	--	--	12/16/2011

### Fuel Oil Storage Tanks

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity <sup>a</sup>	Pollution Control Device (PCD) Description *	PCD ID	Pollutant Controlled	Applicable Permit Date
T1	--	Storage Tank Distillate oil, Biodiesel, MODEF	21,000 gallons	--	--	--	12/16/2011
T2	--	Storage Tank Distillate oil, Biodiesel, MODEF	21,000 gallons	--	--	--	12/16/2011
T3	--	Storage Tank Distillate oil, Biodiesel, MODEF	21,000 gallons	--	--	--	12/16/2011
T4	--	Storage Tank Distillate oil, Biodiesel, MODEF	21,000 gallons	--	--	--	12/16/2011
T5	--	New Lube Oil	1,000 gallons	--	--	--	12/16/2011
T6	--	Used Lube Oil	1,000 gallons	--	--	--	12/16/2011
T7	--	Slop Oily Water	700 gallons	--	--	--	12/16/2011
T8	--	Distillate Oil	500 gallons	--	--	--	12/16/2011

<sup>a</sup> The Size/Rated capacity and PCD efficiency is provided for informational purposes only and is not an applicable requirement.

<sup>b</sup> The thirty-six engines are divided into six groups of six engines.

<sup>c</sup> The stacks are designated by the engine group number description (engines 1 – 6 = stack 1; engines 7 – 12 = stack 2; engines 13 – 18 = stack 3; engines 19 – 24 = stack 4; engines 25 – 30 = stack 5; and engines 31 – 36 = stack 6).



## **Electrical Power Generating Plant – Emission Units A1-F6**

### **Limitations**

1. Limitations: Emission Controls - Nitrogen Oxide (NO<sub>x</sub>) emissions from the engines (Ref. A1-F6) shall be controlled by the original equipment manufacturer's air-to-fuel ratio control, turbocharging, and charge-air cooling systems. The air-to-fuel ratio shall be controlled by a separate engine control module for each engine.  
(9VAC5-80-110 and Condition 3 of the 12/16/2011 Permit)
2. Limitations: Emission Controls - NO<sub>x</sub> emissions from the engines (Ref. A1-F6) shall also be controlled by supplementary inlet charge-air water-to-air cooling and oversized inlet charge and exhaust ducts. The cooling system shall be capable of maintaining, and shall maintain, an hourly average inlet charge-air temperature not greater than 140°F. Water shall be provided continuously to each engine inlet charge-air cooler and each engine shall have independent inlet charge-air temperature measurement and recording capabilities. Each inlet charge-air cooler shall be provided with adequate access for inspection and shall be in operation when any engine is operating.  
(9VAC5-80-110 and Condition 4 of the 12/16/2011 Permit)
3. Limitations: Emission Controls - NO<sub>x</sub> emissions from the engines (Ref. A1-F6) shall be controlled by the combustion of treated landfill gas whenever any of the engines are operated in the dual fuel mode. The extent to which the dual fuel operations control NO<sub>x</sub> emissions is dependent upon the heat substitution rate supplied by the treated landfill gas. A stable supply of landfill gas shall be assured by proper operating procedures and periodic inspection of pressure devices referenced in Condition 13. If landfill gas is diverted to the facility by automatic methods, rather than manually, to ensure the process of diverting the landfill gas is operating in accordance with the facility's standard operating procedures, and to ensure a stable supply of treated landfill gas is being diverted to the engines, the permittee shall install and operate, at the time of such change, a device to continuously monitor and record the process for diverting the collected, treated landfill gas to the engines. Each monitoring device shall be installed, maintained, calibrated, and operated in accordance with approved procedures, which shall include, as a minimum, the manufacturer's written requirements or recommendations.  
(9VAC5-80-110 and Condition 5 of the 12/16/2011 Permit)
4. Limitations: Emission Controls - Carbon Monoxide (CO) emissions from the engines (Ref. A1-F6) shall be controlled by limiting the treated landfill gas heat input ratio to less than or equal to 96%: treated landfill gas heat input to total fuel heat input for each period of continuous dual fuel operations. An increase in the heat input ratio to the engines (Ref. A1-F6) to greater than 96% may require an amendment to this permit. The permittee may, on prior approval from the DEQ Tidewater Regional Office, operate for short periods at heat input ratios greater than or equal to 96% for the purposes of research and development.  
(9VAC5-80-110 and Condition 6 of the 12/16/2011 Permit)

5. Limitations: Fuel - The approved fuels for the engines (Ref. No. 1- 36) shall be treated landfill gas, distillate oil (Number 2 and 4), MODEF (mineral oil dielectric fluid), and biodiesel fuel oil (B-5, B-20, or B-100). A change in the fuels may require an amendment to this permit.  
(9VAC5-80-110 and Condition 8 of the 12/16/2011 Permit)
6. Limitations: Emission Controls - Particulate Matter and Volatile Organic Compound emissions from the engines (Ref. A1-F6) shall be controlled by proper engine maintenance practices. The engines shall be maintained and repaired to prevent excess emissions of particulate matter (in the form of PM and PM10) and volatile organic compounds.  
(9VAC5-80-110 and Condition 9 of the 12/16/2011 Permit)
7. Limitations: Fuel - The distillate oil (Number 2 and 4), MODEF, treated landfill gas, and biodiesel fuel oil (B-5, B-20, or B-100) fuels shall meet the specifications below:

DISTILLATE OIL which meets the ASTM D396 specification for numbers 1 or 2 fuel oil:  
Maximum sulfur content per shipment: 0.0015% (15 ppm)  
Heating Value: 137,000 Btu/gallon

DISTILLATE OIL which meets the ASTM D396 specifications for number 4 fuel oil:  
Maximum sulfur content per shipment: 0.5% (5000 ppm)  
Heating Value: 144,000 Btu/gallon

TREATED LANDFILL GAS:  
Minimum heating value: 198 Btu/scf  
Heating Value: analyzed for Gross Calorific Value using methods outlined in Condition 42.

MINERAL OIL DIELECTRIC FLUID (MODEF):  
Maximum sulfur content per shipment: 0.2% (2000 ppm)  
Heating Value: 145,000 Btu/gallon

BIODIESEL FUEL OIL:  
Maximum sulfur content per shipment: 0.0015% (15 ppm)  
Heating Value: 131,000 Btu/gallon

The heating value of each fuel as listed shall be used to calculate the facility's emissions as defined by the emission factors, equations, and limits in Condition 10.

The permittee shall maintain records (supplier fuel analysis) of all oil shipments purchased. These records shall be available for inspection by the DEQ and shall be current for the most recent five years.  
(9VAC5-80-110, 40CFR63.6604, and Condition 18 of the 12/16/2011 Permit)

8. Limitations: Fuel – Treated Landfill Gas shall be that which is produced by the Virginia Beach Landfill II as that facility is permitted by the Virginia Department of Environmental Quality and has been processed in accordance with 40CFR60.33f (c)(3). The landfill gas treatment system, at a minimum, shall be composed of, in any order, a dewatering process, filtration through a 10-micron filter, and compression. The primary knockout tanks are located at the Virginia Beach Landfill II (Registration Number 61322). The facility's dewatering process shall consist of a tertiary or polishing tank. All landfill gas consumed at the permitted facility shall pass through each component of the landfill gas treatment process prior to combustion in the engines (Ref No. A1-F6). Venting of landfill gas to the atmosphere from any component of the landfill gas treatment or transport system is prohibited.  
 (9VAC5-80-110, 9VAC5-40-5935 A, and Condition 19 of the 12/16/2011 Permit)

9. Limitations: Fuel - MODEF (mineral oil dielectric fluid) shall meet the specifications below; contaminants shall not exceed the limits specified below:

PCB	49 ppm, by weight
Arsenic	5 ppm, by weight
Cadmium	2 ppm, by weight
Chromium	10 ppm, by weight
Lead	25 ppm, by weight
Halogens (total)	1,000 ppm, by weight
Flash Point	100 °F, minimum

(9VAC5-80-110 and Condition 20 of the 12/16/2011 Permit)

10. Limitations: Fuel Throughput - The permittee shall limit the consumption of fuel such that neither the total NOx nor total CO emissions exceed 240.0 tons, each, for any consecutive 12-month period. The emissions shall be calculated monthly as the sum of each consecutive 12-month period according to the following equations:

$$NOx = \frac{\left[ \left( \frac{A \times CV_{DO} \times 1 \text{ MMBtu}}{1,000,000 \text{ Btu}} \right) \times \frac{ENOx(l) \text{ lbs}}{\text{MMBtu}} \right] + \left[ \left( \frac{B \times CV_{LFG} \times 1 \text{ MMBtu}}{1,000,000 \text{ Btu}} \right) \times \frac{ENOx(LFG) \text{ lbs}}{\text{MMBtu}} \right]}{2000 \frac{\text{lbs}}{\text{ton}}}$$

$$CO = \frac{\left[ \left( \frac{A \times CV_{DO} \times 1 \text{ MMBtu}}{1,000,000 \text{ Btu}} \right) \times \frac{ECO(l) \text{ lbs}}{\text{MMBtu}} \right] + \left[ \left( \frac{B \times CV_{LFG} \times 1 \text{ MMBtu}}{1,000,000 \text{ Btu}} \right) \times \frac{ECO(LFG) \text{ lbs}}{\text{MMBtu}} \right]}{2000 \frac{\text{lbs}}{\text{ton}}}$$

Where:

- A = gallons of liquid fuel consumed as Number 2 distillate fuel, Number 4 distillate fuel, MODEF, or biodiesel fuel oil  
 B = cubic feet of landfill gas consumed

ECO(LFG) = Emission factor for CO from landfill gas as shown in the table below

## Emission Factors:

Landfill Gas Substitution Range (NOx)	ENox (l)	ENox (LFG)
0% - 50%	1.8	-1.4
51% - 80%	1.50	1.50
81% - 96%	13.69	-1.31

Landfill Gas Substitution Range (CO)	ECO (l)	ECO (LFG)
0% - 54%	0.36	6.1
55% - 96%	13.38	-0.368

The calculated emissions of NOx and CO, each, shall not exceed 240.0 tons per year, calculated as the sum of each consecutive 12-month period, as a product of the heat input contribution from each individual fuel source.

Each equation above is valid **only** if the total heat input contribution from treated landfill gas is less than or equal to 96% of the total heat input for any period of continuous dual-fuel operation. The ratio (treated landfill gas heat input to total fuel heat input) for each period of continuous dual-fuel operation, shall be less than or equal to 96% at all times, as determined by the following equation:

$$HI_{LFG} \leq \left[ \frac{B \times CV_{LFG}}{(A \times CV_{DO}) + (B \times CV_{LFG})} \right] \times (100)$$

Where:

$$\text{HI}_{\text{LEF}} \leq 96\%$$

The emission factors in the above equations may be modified on approval by the DEQ Tidewater Regional Office.

(9VAC5-80-110 and Condition 21 of the 12/16/2011 Permit)

11. Limitations: Emissions from the operation of any individual engine, or any group of six engines, when the facility is operated in either the single fuel or the dual fuel mode, shall not exceed the limits specified below:

Particulate Matter	0.11 lbs/MMBtu
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PM-10	0.11 lbs/MMBtu
Sulfur Dioxide	0.202 lbs/MMBtu
Nitrogen Oxides	2.3 lbs/MMBtu
Carbon Monoxide	3.2 lbs/MMBtu
Volatile Organic Compounds	0.22 lbs/MMBtu

Compliance with the lbs/MMBtu limits for PM, PM-10, VOC, CO, and NO<sub>x</sub> shall be determined by stack testing. All other emission limits are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits shall be considered credible evidence of the exceedance of the emission limits. Compliance with these emission limits may be determined as stated in Conditions 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 13, 21, 36, 37, and 26.  
(9VAC5-80-110 and Condition 24 of the 12/16/2011 Permit)

12. Limitations - Total emissions from the electrical power generating facility, whether the facility is operated in the single fuel mode or in the dual fuel mode, shall not exceed the limits specified below, calculated monthly as the sum of each consecutive 12-month period:

Particulate Matter	17.6 tons/yr
PM-10	17.6 tons/yr
Sulfur Dioxide	29.1 tons/yr
Nitrogen Oxides	240.0 tons/yr
Carbon Monoxide	240.0 tons/yr
Volatile Organic Compounds	35.2 tons/yr

The emission limits are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits shall be considered credible evidence of the exceedance of the emission limits. Compliance with these emission limits may be determined as stated in Conditions 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 13, 21, 24, 36, 37, 40, and 26.  
(9VAC5-80-110 and Condition 25 of the 12/16/2011 Permit)

13. Limitations - Visible emissions from each stack (S1 - S6) shall not exceed 10% opacity whenever the engines are operated in the single fuel mode, except during one six-minute period in any one hour in which visible emissions shall not exceed 20% opacity. Visible

emissions from each stack (S1 - S6) shall not exceed 20% opacity whenever the engines are operated in a dual fuel mode, except during one six-minute period in any one hour in which visible emissions shall not exceed 30% opacity. All visible emissions rates shall be determined by 40CFR60, Appendix A, Method 9. This condition applies at all times except during startup, shutdown, and malfunction.

(9VAC5-80-110 and Condition 26 of the 12/16/2011 Permit)

14. Limitations – Each of the 36 engines (Ref. A1-F6) shall comply with the maintenance requirements specified in sections 13 (a) through (c) of Table 2d to Subpart ZZZZ:
- a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first, or at an extended frequency if utilizing an oil analysis program as described in §63.6625(i);
  - b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; and
  - c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.

(9VAC5-80-110, 9VAC5-60-90, 9VAC5-60-100, 40CFR63.6603 (a), and Table 2d (13) of 40CFR63 Subpart ZZZZ)

15. Limitations – During periods of startup the permittee must minimize the time spent at idle for each of the 36 engines (Ref. A1-F6) and minimize each engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.
- (9VAC5-80-110 and 40CFR63.6625 (h))

## **Monitoring**

16. Monitoring: Monitoring Devices - The facility shall be equipped with devices to continuously measure, and record treated landfill gas consumption, distillate oil consumption, MODEF consumption, Number 2 and 4 distillate oil consumption, and biodiesel fuel oil consumption by the engines (Ref. A1-F6). Each device shall be installed, maintained, calibrated, and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each device shall be provided with adequate access for inspection and shall be in operation when the facility is operating.
- (9VAC5-80-110 and Condition 11 of the 12/16/2011 Permit)
17. Monitoring: Monitoring Devices - Each engine (Ref. A1-F6) shall be equipped with devices to continuously measure engine inlet charge-air temperature. Each device shall be installed, maintained, calibrated, and operated in accordance with approved procedures which shall

include, as a minimum, the manufacturer's written requirements or recommendations. Each device shall be provided with adequate access for inspection and shall be in operation when the engine is operating.

(9VAC5-80-110 and Condition 12 of the 12/16/2011 Permit)

18. **Monitoring: Monitoring Devices** - The facility shall be equipped with a device to continuously measure the pressure within the treated landfill gas transport system. At a minimum, devices shall be located just before and just after the 10-micron filter, and after the completed treatment process. Each device shall be installed, maintained, calibrated, and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each device shall be provided with adequate access for inspection and shall be in operation whenever the engines are operating.  
(9VAC5-80-110 and Condition 13 of the 12/16/2011 Permit)
19. **Monitoring: Monitoring Device Observation** - The devices used to measure treated landfill gas, distillate oil (Number 2 and 4), MODEF, and biodiesel fuel oil consumption shall be observed by the permittee after each period of continuous operation, once the engines have ceased operation. In addition, whenever the engines are operated in the dual fuel mode, the devices used to measure each volume of fuel consumed by the engines (Ref. A1-F6) shall be read each time-controlled landfill gas is diverted from the utility flare to the facility and then again whenever the engines are returned to single fuel operations. The permittee shall maintain a daily log of the observations of each device, to include, at a minimum, each set of readings that define each period of dual fuel operations and the time the observation was recorded.  
(9VAC5-80-110 and Condition 14 of the 12/16/2011 Permit)
20. **Monitoring: Monitoring Device Observation** - The devices used to measure inlet charge-air temperature shall be observed by the permittee with a frequency of not less than once per hour whenever the engines (Ref. A1-F6) are operating. The permittee shall maintain a daily log of the temperature observations of the devices and the time the observation was recorded.  
(9VAC5-80-110 and Condition 15 of the 12/16/2011 Permit)
21. **Monitoring: Fuel Certification** - The permittee shall obtain a certification from the fuel supplier with each shipment of Number 2 and Number 4 distillate fuel and each shipment of biodiesel fuel oil. Each fuel supplier certification shall include the following:
  - a. The name of the fuel supplier;
  - b. The date on which the Number 2 distillate oil, Number 4 distillate oil, or biodiesel fuel oil was received;

- c. The volume of Number 2 distillate oil, Number 4 distillate oil, or biodiesel fuel oil delivered in the shipment;
- d. A statement that the distillate oil complies with the American Society for Testing and Materials specifications (ASTM D396) for Numbers 1 or 2 fuel oil;
- e. A statement that the distillate oil complies with the American Society for Testing and Materials specifications (ASTM D396) for Number 4 fuel oil;
- f. A statement that the biodiesel fuel complies with the American Society for Testing and Materials specifications (ASTM D6751) for biodiesel fuel oil; and
- g. The sulfur content for each shipment of Number 2 distillate oil, Number 4 distillate oil, and biodiesel fuel oil.

These records shall be available for inspection by the DEQ and shall be current for the most recent five years.

(9VAC5-80-110 and Condition 22 of the 12/16/2011 Permit)

- 22. Monitoring – The permittee shall develop a maintenance plan for each of the engines (Ref. A1-F6) that provides to the extent practicable for the maintenance and operation of each engine in a manner consistent with good air pollution control practice for minimizing emissions.  
(9VAC5-80-110, 9VAC5-60-90, 9VAC5-60-100, and 40CFR63.6625 (e))
- 23. Monitoring – The permittee must demonstrate continuous compliance with the requirements in Conditions 14 and 15 by:
  - a. Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or
  - b. Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

(9VAC5-80-110, 9VAC5-60-90, 9VAC5-60-100, 40CFR63.6640 (a), and Table 6 of 40CFR63 Subpart ZZZZ)

## **Recordkeeping**

- 24. Recordkeeping - The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Director, Tidewater Region. These records shall include, but are not limited to:



- a. Annual consumption of treated landfill gas, Number 2 distillate oil, Number 4 distillate oil, MODEF, and biodiesel fuel oil, each calculated monthly as the sum of each consecutive 12-month period;
- b. All fuel supplier certifications;
- c. Annual emission calculations (in tons) to verify compliance with the emission limits in Conditions 10, 11, and 12. Annual emissions shall be calculated monthly, as the sum of each consecutive 12-month period. Calculation methods and emissions factors shall be approved by the DEQ Tidewater Regional Office;
- d. Daily records of fuel consumption, for each fuel used, and for every period of operation, to verify compliance with the Conditions 4, 10, 16, and 19;
- e. Hourly records of average engine charge-air temperature readings to verify compliance with Conditions 2 and 20;
- f. All one-hour periods of operation during which the charge-air temperature, as described in Condition 2, exceeds the average charge-air temperature limit of 140 °F; and
- g. All MODEF sample collection and analysis information, as required by Condition 26.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five years.

(9VAC5-80-110, 9VAC5-50-50, and Condition 27 of the 12/16/2011 Permit)

25. Recordkeeping - The facility shall maintain all records as applicable to the 36 engines (Ref. A1-F6) which include the following:
- a. A copy of each notification and report submitted to comply with this subpart, including all submitted documentation supporting any Initial Notification or Notification of Compliance Status, according to the requirement in §63.10(b)(2)(xiv).
  - b. Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment.
  - c. Records of performance tests and performance evaluations as required in §63.10(b)(2)(viii).
  - d. Records of all required maintenance performed on the air pollution control and monitoring equipment.

- e. Records of actions taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.
- f. Records demonstrating compliance with the work and management practices required in Condition 14 according to the methods specified in Table 6 (9.a.ii) of 40 CFR 63 Subpart ZZZZ.
- g. A copy of a site-specific maintenance and operation plan for the engines that is consistent with good air pollution control for minimizing emissions in accordance with Table 6 (9.a.ii) of 40 CFR 63 Subpart ZZZZ.

(9VAC5-80-110, 40CFR63.6640 (a), 40CFR63.6655 (a), and 40CFR63.6655 (e)(3))

### Testing

26. Testing: Fuel Sampling and Analysis - The permittee shall, by laboratory analysis, verify that all parameters listed in Condition 9 do not exceed their respective limits. A MODEF sample shall be collected and analyzed once each calendar quarter from a randomly chosen incoming shipment. A calendar quarter is defined as the periods January 1st through March 30th, April 1st through June 30th, July 1st through September 30th, and October 1st through December 31". Each quarterly laboratory analysis shall include the following:
- a. The collection method(s) used to obtain the quarterly sample of MODEF;
  - b. The date of MODEF sample collection and MODEF sample analysis;
  - c. The name and address of the MODEF supplier;
  - d. The test methods used to determine the contaminant concentration in the MODEF;
  - e. The concentration of each parameter detected in the analyzed sample; and
  - f. The detection limit for each of the parameters listed in Condition 9, for the test method used.

The permittee will not be required to analyze a quarterly MODEF sample during any calendar quarter when MODEF is not combusted in any of the engines (Ref. A1-F6), or no shipments of MODEF were received. During those calendar quarters that MODEF is not combusted in any engine, or no shipments were received, the permittee shall record and maintain such information. All records required by this Condition shall be available for inspection by the DEQ and shall be current for the most recent five years.  
(9VAC5-80-110, 9VAC5-50-30, and Condition 23 of the 12/16/2011 Permit)

27. Testing: Performance Validation Testing - Performance tests for NO<sub>x</sub> and CO shall be conducted on a 275-day cycle, starting from the completion date of the most recent performance testing. Each testing cycle shall evaluate the performance of a different set of six engines (stack). Separate tests shall be made while operating in single fuel mode using 100% liquid fuel, and also in dual fuel mode using various quantities of landfill gas and liquid fuel. A sufficient number of data points shall be established to determine compliance with the emission limits using valid statistical analysis methods. At a minimum, tests in the dual fuel mode shall be performed with the ratio of treated landfill gas heat input to total fuel heat input in the range of 81% to 96%. Tests in the dual fuel mode shall be performed at no less than 80% of the rated capacity and tests at the upper landfill gas substitution range shall be performed at no less than 65% of the rated capacity of the electrical output, on the number of engines in one group of six engines supported by landfill gas flow and methane content. Testing results shall verify ongoing compliance with the emission limits contained in Conditions 10, 11, and 12. After a period of not less than two consecutive test cycles, upon request by the permittee, the testing requirements shall be reviewed by the DEQ Tidewater Regional Office, and a determination made by DEQ regarding continuation of the test program on a 275-day interval, or modification of the test program to some other time interval. Test results shall be reported; and data reduced as set forth in 9VAC5-50-30, and the test methods and procedures contained in each applicable section or subpart listed in 9VAC5-50-410. The details of the tests are to be arranged in advance of the testing with the DEQ Tidewater Regional Office. The permittee shall submit a test protocol at least 30 calendar days prior to testing. One copy of the test results shall be submitted to the DEQ Tidewater Regional Office within 60 calendar days after test completion.  
(9VAC5-80-110, 9VAC5-50-30, and Condition 32 of the 12/16/2011 Permit)
28. Testing: Performance Validation Testing - In the event that Number 4 distillate fuel is used at the time of fuel performance validation testing, testing using that particular fuel shall be performed in the same manner as described in Condition 27.  
(9VAC5-80-110, 9VAC5-50-30, and Condition 33 of the 12/16/2011 Permit)
29. Testing: Performance Validation Testing - The testing referenced in Conditions 27 and 28 of this permit shall be performed during the two weeks preceding the 275th day. Testing referenced in Conditions 27, 28, 42, and 43, shall not be performed on Saturdays or Sundays. In no event shall the time period between performance validation testing exceed 275 days. If higher gas fractions are utilized at more than two sets of engines (if the programming for more than two sets of engines is modified to allow higher gas fractions), then performance validation testing in accordance with Conditions 27 and 28 shall be conducted on the additional sets of engines.  
(9VAC5-80-110, 9VAC5-50-30, and Condition 34 of the 12/16/2011 Permit)
30. Testing: Performance Validation Testing - On August 18, 2008, INGENCO requested a determination by DEQ that the performance testing referenced in Condition 27 be suspended due to satisfactory demonstration of compliance for treated landfill gas, Number 2 distillate

oil, Number 4 distillate oil, and MODEF fuels. No further testing in accordance with Condition 27 will be required unless higher gas fractions are utilized at additional engine groups other than the two sets currently equipped to operate at such gas fractions. In addition, testing may be reinstated if the engine groups are replaced or reconstructed. The permittee shall notify DEQ prior to additional engine groups operating at higher gas fractions, or the replacement or reconstruction of engine groups. At that time, DEQ will evaluate the need for reinstatement of the testing requirement in Condition 27.  
(9VAC5-80-110, 9VAC5-50-30, and Condition 35 of the 12/16/2011 Permit)

31. Testing: Performance Validation Testing for Biodiesel Fuel Oil - The permittee shall conduct performance testing for NO<sub>x</sub> and CO as referenced in Condition 27 of the permit for biodiesel fuel oil to verify compliance with the emission limits in Conditions 10, 11, and 12. The permittee shall conduct the initial performance tests within 180 calendar days of the initial use of biodiesel fuel in the engines. After a period of not less than two consecutive test cycles, upon request by the permittee, the testing requirements shall be reviewed by the DEQ Tidewater Regional Office, and a determination shall be made by DEQ as to the continuation of the test program on a 275-day interval, or modification of the test program to some other time interval. Test results shall be reported, and data reduced as set forth in 9VAC5-50-30, and the test methods and procedures contained in each applicable section or subpart listed in 9VAC5-50-410. The details of the tests are to be arranged in advance of the testing with the DEQ Tidewater Regional Office. The permittee shall submit a test protocol at least 30 calendar days prior to testing. One copy of the test results shall be submitted to the DEQ Tidewater Regional Office within 60 calendar days after test completion.  
(9VAC5-80-110, 9VAC5-50-30, and Condition 36 of the 12/16/2011 Permit)
32. Testing - The permittee shall perform a monthly visual emissions observation on each stack (Ref. S1 - S6) during normal operations. During months in which more than one mode of operation occurs, monthly visual emissions observations shall be performed during each mode. If such visual observation indicates any abnormal visible emissions, the permittee shall take corrective action to eliminate the visible emissions. Abnormal visible emissions shall be defined as any emissions exceeding 10 percent opacity, except during startup. If such corrective action fails to eliminate the abnormal visible emissions, the permittee shall conduct a visible emissions evaluation (VEE) using 40 CFR Part 60, Appendix A, Method 9 for six minutes. If the six-minute VEE opacity average exceeds 50 percent of the standard for a specific unit, the VEE for that unit shall continue for an additional 12 minutes. If any of the six-minute averages during the 18 minutes exceeds the standard for a specific unit, the VEE for that unit shall continue for one hour from initiation, on the stack to determine compliance with the opacity limit. The permittee shall record the mode of operation during the observations, the details of the visual emissions observations, VEE, and any corrective actions. The records shall be kept at the facility and made available for inspection by the DEQ for the most recent five-year period.  
(9VAC5-80-110)

33. Testing - If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the appropriate method(s) in accordance with procedures approved by the DEQ.  
(9VAC5-80-110)
34. Testing - Upon request by the DEQ, the permittee shall conduct additional performance tests on the engines (Ref. A1-F6) to demonstrate compliance with the emission limits contained in this permit. The details of the tests shall be arranged with the DEQ.  
(9VAC5-80-110)

### **Reporting**

35. Reporting -The facility shall report each instance that a requirement in Table 2d of 40CFR63 Subpart ZZZZ was not met.  
(9VAC5-80-110 and 40CFR63.6640 (b))

## **Landfill Gas Treatment and Transport System**

### **Limitations**

36. Limitations: Emission Controls - Any uncontrolled venting of landfill gas from the engines (Ref. A1-F6), the landfill gas treatment system, or the treated landfill gas transport system, is prohibited. All treated landfill gas shall be purged from the treated landfill gas transport system prior to shutting down any engine after operating in the dual fuel mode. All atmospheric vents in the treated landfill gas transport system shall be controlled by either removing each vent as of the effective date of the permit or by installing and operating a device to divert the emissions from all vents to an approved landfill gas control system.  
(9VAC5-80-110 and Condition 7 of the 12/16/2011 Permit)
37. Limitations: Emission Controls - All components of the treated landfill gas control system, which consists of each engine (Ref. A1-F6), the treated landfill gas transport system, and the landfill gas treatment system, as specified in Condition 8, shall be in operation whenever the permittee is operating the engines in a dual fuel mode. If any component of the landfill gas treatment system or treated landfill gas transport system malfunctions, the treated landfill gas transport system shall be shut down and all untreated landfill gas shall be diverted to the Virginia Beach Landfill II utility flare. If any engine or set of engines malfunctions, that portion of treated landfill gas shall be diverted to the remaining engines, or to the Virginia Beach Landfill II utility flare.  
(9VAC5-80-110 and Condition 10 of the 12/16/2011 Permit)

## **Monitoring**

38. **Monitoring: Monitoring Device Observation** - The devices used to measure the pressure in the treated landfill gas transport system shall be observed by the permittee with a frequency of not less than once per day whenever treated landfill gas is combusted in the engines. The permittee shall maintain a daily log of the observations of the devices, to include the change in pressure across the 10-micron filter, and the date and time of each observation. Minimum and maximum pressure specifications indicating improper operation of the system shall be determined for all pressure-measuring devices. These specifications shall be determined, and included, in the written operating procedures for the treatment and transport system within 30 calendar days after the issuance date of this permit.  
(9VAC5-80-110 and Condition 16 of the 12/16/2011 Permit)
39. **Monitoring: Landfill Gas Treatment Equipment** - The entire landfill gas treatment system, as specified in Condition 8, is required to comply with 40CFR60.33f (c)(3) and shall be installed and operational whenever landfill gas is being transferred to any of the engines (Ref. A1-F6). Verification of satisfactory operation of treatment equipment shall, at a minimum, include certification that the permittee is following the manufacturer's written requirements or recommendations for installation, operation, and maintenance of the devices. This certification shall be performed any time in the future if the facility is modified.  
(9VAC5-80-110, 9VAC5-40-5935 A, and Condition 17 of the 12/16/2011 Permit)

## **Recordkeeping**

40. **Recordkeeping** - The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Tidewater Regional Office. These records shall include, but are not limited to:
- a. All landfill gas Gross Calorific Value testing results;
  - b. Daily records of treated landfill gas heat input as the ratio of total heat input for every period of continuous operation to verify compliance with Conditions 4 and 10. Heat input calculations shall be based on the data required by Conditions 7 and 27;
  - c. Treated landfill gas transport system pressure readings to verify compliance with Condition 38;
  - d. Records of observations and results of all tests, stack tests, visible emission evaluations, and performance evaluations as required by Conditions 27, 28, 29, 41, 42, and 43. At a minimum, these records shall include all treated landfill gas moisture content monitoring results and landfill gas heat content monitoring results;

- e. Records of scheduled and unscheduled maintenance, maintenance schedules, and service records for all air pollution related equipment;
- f. Operating procedures and operator training records for all air pollution related equipment;
- g. All records generated by the device installed for the purpose of continuously monitoring and recording the status of the device used to divert the collected landfill gas from the utility flare to the landfill gas treatment system, and then to the engines, as required by Condition 3;
- h. All operational certifications, as required by Condition 39; and
- i. Records indicating the dates that landfill gas was sent through the treatment system and the heating value for the landfill gas on those dates.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five years.

(9VAC5-80-110, 9VAC5-50-50, and Condition 27 of the 12/16/2011 Permit)

## Testing

- 41. Testing: Treated Landfill Gas Moisture Content - The permittee shall drain the polishing tank referenced in Condition 8 at least once each day that landfill gas is consumed by the facility and observe the presence or absence of any water collected in the tank. The permittee shall maintain a daily log of these observations, which shall include the date and time of each observation.  
(9VAC5-80-110, 9VAC5-50-30, and Condition 29 of the 12/16/2011 Permit)
- 42. Testing: Treated Landfill Gas Gross Calorific Value Tests - The permittee shall conduct tests to determine the treated landfill gas gross calorific value in Btu/scf (referred to as Treated Landfill Gas in Conditions 7 and 8) in order to demonstrate compliance with both the fuel throughput limits and the emission limits contained in this permit. The treated landfill gas gross calorific value tests shall be performed and recorded no less than once every 90 calendar days. The most recent gross calorific value shall be substituted in the equations in Condition 10 for the purpose of calculating the facility's monthly emissions. All testing shall be performed in accordance with EPA reference test methods or equivalent methods as approved in advance of the testing by the DEQ Tidewater Regional Office.  
(9VAC5-80-110, 9VAC5-50-30, and Condition 30 of the 12/16/2011 Permit)
- 43. Testing: Landfill Gas Gross Calorific Value Tests - If landfill gas below the limit of 198 Btu/scf has been used by the INGENCO facility, or INGENCO has reason to believe that landfill gas below the limit of 198 Btu/scf may have been used, the permittee shall:

- a. Notify the DEQ Tidewater Regional Office in accordance with Condition 52;
- b. Cease all dual fuel operations. The facility shall only be operated in the single fuel mode using 100% liquid fuel until such time as the permittee can evaluate the integrity of the landfill gas treatment and transport systems for the purpose of identifying potential excess ambient air infiltration into the gas transport system. If excess air infiltration has occurred, the permittee shall document the resulting findings and the corrective actions taken; and
- c. Re-test the treated landfill gas for Gross Calorific Value prior to resuming dual fuel operations. Re-testing shall be performed at 4-hour intervals. Dual fuel operations may be resumed at such time that two consecutive Gross Calorific Value tests, conducted at 4-hour intervals, have produced results exceeding the minimum heating value or the permittee provides the DEQ Tidewater Regional Office, with performance testing capable of verifying that treated landfill gas with a reduced heating value is capable of producing emission rates not exceeding the limits specified in Condition 10.

All records required by this Condition shall be available for inspection by the DEQ and shall be current for the most recent five years.

(9VAC5-80-110, 9VAC5-50-30, and Condition 31 of the 12/16/2011 Permit)

### **Insignificant Emission Units**

44. Insignificant Emission Units - The following emission units at the facility are identified in the application as insignificant emission units under 9VAC5-80-720:

None Identified

These emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9VAC5-80-110. (9VAC5-80-110)

### **Permit Shield & Inapplicable Requirements**

45. Permit Shield & Inapplicable Requirements - Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements which have been specifically identified as being not applicable to this permitted facility:



Citation	Title of Citation	Description of Applicability
40CFR60 Subpart Kb	Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984	The storage tanks are exempt by size
40CFR60 Subpart WWW	Standards of Performance for Municipal Solid Waste Landfills That Commenced Construction, Reconstruction, or Modification on or After May 30, 1991, but Before July 18, 2014	The facility is exempt from sections regarding the destruction of landfill gas because the plant meets the requirements of 40CFR60.752 (b)(2)(iii)(C)
40CFR60 Subpart XXX	Standards of Performance for Municipal Solid Waste Landfills That Commenced Construction, Reconstruction, or Modification After July 17, 2014	The requirements of Subpart XXX are not applicable to INGENCO; the requirements are applicable to the municipal solid waste landfill, which is permitted under a separate permit
40CFR60 Subpart IIII	Standards of Performance for Stationary Compression Ignition Internal Combustion Engines	The CI RICE were constructed before the applicability date
40CFR63 Subpart AAAA	National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills	The facility is not considered a major source of HAP
40CFR64	Compliance Assurance Monitoring (CAM)	The CI RICE are not equipped with control devices; CAM is therefore not applicable
9VAC5, Chapter 80, Article 3	Federal Operating Permits for Acid Rain Sources	The facility does not operate any affected units, as defined in 9VAC5-80-380
9VAC5, Chapter 40, Article 8	Emission Standards for Fuel Burning Equipment (Rule 4-8)	The provisions of Rule 4-8 are not applicable to engines
9VAC5, Chapter 40, Article 43.1	Municipal Solid Waste Landfills for which Construction, Reconstruction, or Modification was Commenced On or Before July 17, 2014 (Rule 4-43.1)	The requirements of Rule 4-43.1 are not applicable to INGENCO; the requirements are applicable to the municipal solid waste landfill, which is permitted under a separate permit

Nothing in this permit shield shall alter the provisions of §303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by (i) the administrator pursuant to §114 of the federal Clean Air Act or (ii) the DEQ pursuant to §10.1-1307.3 or §10.1-1315 of the Virginia Air Pollution Control Law.  
(9VAC5-80-110 and 9VAC5-80-140)

## General Conditions

46. General Conditions - Federal Enforceability - All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable.  
(9VAC5-80-110)
47. General Conditions - Permit Expiration
- a. This permit has a fixed term of five years. The expiration date shall be the date five years from the date of issuance. Unless the owner submits a timely and complete application for renewal to the Department consistent with the requirements of 9VAC5-80-80, the right of the facility to operate shall be terminated upon permit expiration.
  - b. The owner shall submit an application for renewal at least six months but no earlier than eighteen months prior to the date of permit expiration.
  - c. If an applicant submits a timely and complete application for an initial permit or renewal under 9VAC5-80-80 F, the failure of the source to have a permit or the operation of the source without a permit shall not be a violation of Article 1, Part II of 9VAC5 Chapter 80, until the DEQ takes final action on the application under 9VAC5-80-150.
  - d. No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of 9VAC5-80-80 for a renewal permit, except in compliance with a permit issued under Article 1, Part II of 9VAC5 Chapter 80.
  - e. If an applicant submits a timely and complete application under section 9VAC5-80-80 for a permit renewal but the DEQ fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied and (ii) all the terms and conditions of the previous permit, including any permit shield granted pursuant to 9VAC5-80-140, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.
  - f. The protection under subsections F 1 and F 5 (ii) of section 9VAC5-80-80 F shall cease to apply if, subsequent to the completeness determination made pursuant section 9VAC5-80-80 D, the applicant fails to submit by the deadline specified in writing by the DEQ any additional information identified as being needed to process the application.

(9VAC5-80-80, 9VAC5-80-110, and 9VAC5-80-170)

48. General Conditions - Recordkeeping and Reporting - All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:

- a. The date, place as defined in the permit, and time of sampling or measurements;
- b. The date(s) analyses were performed;
- c. The company or entity that performed the analyses;
- d. The analytical techniques or methods used;
- e. The results of such analyses; and
- f. The operating conditions existing at the time of sampling or measurement.

(9VAC5-80-110)

49. General Conditions - Recordkeeping and Reporting - Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

(9VAC5-80-110)

50. General Conditions -Recordkeeping and Reporting - The permittee shall submit the results of monitoring contained in any applicable requirement to the DEQ no later than March 1 and September 1 of each calendar year. This report must be signed by a responsible official, consistent with 9VAC5-80-80 G, and shall include:

- a. The time period included in the report. The time periods to be addressed are January 1 to June 30 and July 1 to December 31; and
- b. All deviations from permit requirements. For purpose of this permit, deviations include, but are not limited to:
  - i. Exceedances of emissions limitations or operational restrictions;
  - ii. Excursions from control device operating parameter requirements, as documented by continuous emission monitoring or periodic monitoring, or Compliance Assurance Monitoring (CAM) which indicates an exceedance of emission limitations or operational restrictions; or,

- iii. Failure to meet monitoring, recordkeeping, or reporting requirements contained in this permit.
- c. If there were no deviations from permit conditions during the time period, the permittee shall include a statement in the report that "no deviations from permit requirements occurred during this semiannual reporting period."

(9VAC5-80-110)

51. General Conditions - Annual Compliance Certification - Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to the Environmental Protection Agency (EPA) and the DEQ no later than March 1 each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices for the period ending December 31. The compliance certification shall comply with such additional requirements that may be specified pursuant to §114(a) (3) and §504(b) of the federal Clean Air Act. The permittee shall maintain a copy of the certification for five (5) years after submittal of the certification. This certification shall be signed by a responsible official, consistent with 9VAC5-80-80 G, and shall include:

- a. The time period included in the certification. The time period to be addressed is January 1 to December 31;
- b. The identification of each term or condition of the permit that is the basis of the certification;
- c. The compliance status;
- d. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance;
- e. Consistent with subsection 9VAC5-80-110, the method or methods used for determining the compliance status of the source at the time of certification and over the reporting period;
- f. Such other facts as the permit may require to determine the compliance status of the source; and
- g. One copy of the annual compliance certification shall be submitted to the EPA in electronic format only. The certification document should be sent to the following electronic mailing address:

[R3\\_APD\\_Permits@epa.gov](mailto:R3_APD_Permits@epa.gov)

(9VAC5-80-110)

52. General Conditions - Permit Deviation Reporting - The permittee shall notify the Tidewater Regional Office within four daytime business hours after discovery of any deviations from permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions as may be defined in this permit. In addition, within 14 days of the discovery, the permittee shall provide a written statement explaining the problem, any corrective actions or preventative measures taken, and the estimated duration of the permit deviation. The occurrence should also be reported in the next semiannual compliance monitoring report pursuant to Condition 50 of this permit.  
(9VAC5-80-110 F. 2)
53. General Conditions - Failure/Malfunction Reporting - In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall no later than four daytime business hours after the malfunction is discovered, notify the Tidewater Regional Office of such failure or malfunction and within 14 days provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the Tidewater Regional Office.  
(9VAC5-80-110 and 9VAC5-20-180)
54. General Conditions - Failure/Malfunction Reporting - Each owner required to install a continuous monitoring system (CMS) or monitoring device subject to 9VAC5-40-41 or 9VAC5-50-410 shall submit a written report of excess emissions (as defined in the applicable subpart in 9VAC5-50-410) and either a monitoring systems performance report or a summary report form, or both, to the DEQ semiannually. All semiannual reports shall be postmarked by the 30th day following the end of each calendar semiannual period (June 30th and December 31st). All reports shall include the following information:
- a. The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h) or 9VAC5-40-41 B.6, any conversion factors used, and the date and time of commencement and completion of each period of excess emissions;
  - b. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the source. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted;
  - c. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments; and
  - d. When no excess emissions have occurred or the continuous monitoring systems have not been inoperative, repaired or adjusted, such information shall be stated in the report.

All malfunctions of emission units not subject to 9VAC5-40-50 C and 9VAC5-50-50 C require written reports within 14 days of the discovery of the malfunction.  
(9VAC5-80-110 and 9VAC5-20-180 C)

55. General Conditions - Severability - The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.  
(9VAC5-80-110)
56. General Conditions - Duty to Comply - The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is ground for enforcement action; for permit termination, revocation and reissuance, or modification; or, for denial of a permit renewal application.  
(9VAC5-80-110)
57. General Conditions - Need to Halt or Reduce Activity not a Defense - It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.  
(9VAC5-80-110)
58. General Conditions - Permit Modification - A physical change in, or change in the method of operation of, this stationary source may be subject to permitting under State Regulations 9VAC5-80-50, 9VAC5-80-1100, 9VAC5-80-1605, or 9VAC5-80-2000 and may require a permit modification and/or revisions except as may be authorized in any approved alternative operating scenarios.  
(9VAC5-80-110, 9VAC5-80-190, and 9VAC5-80-260)
59. General Conditions - Property Rights - The permit does not convey any property rights of any sort, or any exclusive privilege.  
(9VAC5-80-110)
60. General Conditions - Duty to Submit Information - The permittee shall furnish to the DEQ, within a reasonable time, any information that the DEQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the DEQ copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the DEQ along with a claim of confidentiality.  
(9VAC5-80-110)

61. General Conditions - Duty to Submit Information - Any document (including reports) required in a permit condition to be submitted to the DEQ shall contain a certification by a responsible official that meets the requirements of 9VAC5-80-80 G. (9VAC5-80-110)
62. General Conditions - Duty to Pay Permit Fees - The owner of any source for which a permit was issued under 9VAC5-80-50 through 9VAC5-80-300 shall pay annual emissions fees, as applicable, consistent with the requirements of 9VAC5-80-310 through 9VAC5-80-350 and annual maintenance fees, as applicable, consistent with the requirements of 9VAC5-80-2310 through 9VAC5-80-2350. (9VAC5-80-110, 9VAC5-80-310 et seq., and 9VAC5-80-2310 et seq.)
63. General Conditions - Fugitive Dust Emission Standards - During the operation of a stationary source or any other building, structure, facility, or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to, the following:
- a. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;
  - b. Application of asphalt, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;
  - c. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or similar operations;
  - d. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and,
  - e. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion.
- (9VAC5-80-110 and 9VAC5-50-90)
64. General Conditions - Startup, Shutdown, and Malfunction - At all times, including periods of startup, shutdown, and soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing

emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the DEQ, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.  
(9VAC5-80-110 and 9VAC5-50-20 E)

65. General Conditions - Alternative Operating Scenarios - Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9VAC5-80-140 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9VAC5 Chapter 80, Article 1.  
(9VAC5-80-110)

66. General Conditions - Inspection and Entry Requirements - The permittee shall allow the DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:
- a. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.
  - b. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.
  - c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.
  - d. Sample or monitor at reasonable times' substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

(9VAC5-80-110)

67. General Conditions - Reopening for Cause - The permit shall be reopened by the DEQ if additional federal requirements become applicable to a major source with a remaining permit term of three years or more. Such reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9VAC5-80-80 F. The conditions for reopening a permit are as follows:



- a. The permit shall be reopened if the DEQ or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
  - b. The permit shall be reopened if the administrator or the DEQ determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
  - c. The permit shall not be reopened by the DEQ if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9VAC5-80-110 D.  
(9VAC5-80-110)
68. General Conditions - Permit Availability - Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to the DEQ upon request.  
(9VAC5-80-110 and 9VAC5-80-150)
69. General Conditions - Transfer of Permits
- a. No person shall transfer a permit from one location to another, unless authorized under 9VAC5-80-130, or from one piece of equipment to another.
  - b. In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the DEQ of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9VAC5-80-200.
  - c. In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the DEQ of the change in source name within 30 days of the name change and shall comply with the requirements of 9VAC5-80-200.  
(9VAC5-80-110 and 9VAC5-80-160)
70. General Conditions - Permit Revocation or Termination for Cause - A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9VAC5 Chapter 80 Article 1. The DEQ may suspend, under such conditions and for such period of time as the DEQ may prescribe any permit for any grounds for revocation or termination or for any other violations of these regulations.  
(9VAC5-80-110, 9VAC5-80-190 C, and 9VAC5-80-260)

71. General Conditions - Duty to Supplement or Correct Application - Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit.  
(9VAC5-80-110 and 9VAC5-80-80 E)
72. General Conditions - Stratospheric Ozone Protection - If the permittee handles or emits one or more Class I or II substances subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F.  
(9VAC5-80-110 and 40 CFR Part 82)
73. General Conditions - Asbestos Requirements - The permittee shall comply with the requirements of National Emissions Standards for Hazardous Air Pollutants (40 CFR 61) Subpart M, National Emission Standards for Asbestos as it applies to the following: Standards for Demolition and Renovation (40 CFR 61.145), Standards for Insulating Materials (40 CFR 61.148), and Standards for Waste Disposal (40 CFR 61.150).  
(9VAC5-60-70 and 9VAC5-80-110)
74. General Conditions - Accidental Release Prevention - If the permittee has more or will have more than a threshold quantity of a regulated substance in a process, as determined by 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68.  
(9VAC5-80-110 and 40 CFR Part 68)
75. General Conditions - Changes to Permits for Emissions Trading - No permit revision shall be required under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.  
(9VAC5-80-110)
76. General Conditions - Emissions Trading - Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:
  - a. All terms and conditions required under 9VAC5-80-110, except subsection N, shall be included to determine compliance.
  - b. The permit shield described in 9VAC5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions.

- c. The owner shall meet all applicable requirements including the requirements of 9VAC5-80-50 through 9VAC5-80-300.

(9VAC5-80-110)

### **State-Only Enforceable Requirements**

The following terms and conditions are not required under the federal Clean Air Act or under any of its applicable federal requirements and are not subject to the requirements of 9VAC5-80-290 concerning review of proposed limits by the EPA and draft permits by affected states.

9VAC5-50-310, Odorous Emissions